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GLOBAL TUNA MARKETS AND HAWAII AKU

Dennis M. King
E.R.G. Pacific Inc.
San Diego, California

NOT FOR PUBLICATION

ADMINISTRATIVE REPORT H-86-12C

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PREFACE

This report represents a written presentation for the workshop on **Forces of Change in Hawaii's Aku (Skipjack Tuna) Industry** held in Honolulu on April 30 and May 1, 1986. The workshop was coordinated by the National Marine Fisheries Service, Southwest Fisheries Center Honolulu Laboratory. Workshop results will be summarized in a forthcoming Southwest Fisheries Center Administrative Report.

The workshop presentations were prepared by independent scientists and are reported here verbatim. Therefore the results, conclusions, and recommendations are those of the author and do not necessarily represent the views of the National Marine Fisheries Service.

SUMMARY OF PRESENTATION

GLOBAL TUNA MARKETS AND HAWAII AKU

by

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GENERAL PERSPECTIVE

At first glance, Hawaii seems to be sitting in the middle of a teeming Pacific Ocean tuna fishery which produces 70% of the world supply (See Exhibit 1). Moreover, it would seem that Hawaii aku fishermen who produce high quality skipjack should be able to find a decent market for their catch in a world that consumes 1.8 million tons of tuna annually. A review of the global tuna market and the patterns of international tuna trade, however, do not support either of these propositions. Such a review also helps explain why Hawaii aku fishermen face such severe marketing problems and identifies a few areas where new market development might be able to help.

At the current time, there is a glut of skipjack and other tuna on world markets which has depressed the world price of raw/frozen skipjack from $1100 per short ton in 1980 to less than $700 per short ton in 1986. The growing size of the international tuna fleet, especially tuna purse-seiners, the development of new tuna fishing areas in the western Pacific and Indian Oceans combined with the limited size of global tuna markets suggest that tuna prices, including the price of skip-

jack, will probably remain depressed for some time. Hawaii has an unusually large market for fresh skipjack, but most skipjack entering the world market is canned and much of the skipjack sold to the cannery market is harvested by purse-seiners which can produce very high volumes at relatively low cost. Even though the Hawaii aku fleet produces a higher quality catch and can deliver it fresh to local markets, if Hawaii aku fishermen are to export what cannot be absorbed in the local market, they will need to compete in the international market on the basis of price, not quality. Since Hawaii aku accounts for under 1% of world skipjack supply, Hawaii aku fishermen would not be able to exert much influence on world tuna markets and would have to accept prevailing world prices for cannery-quality fish which are below local production costs. (See Exhibit 2.)

Oddly enough, another disadvantage for Hawaii is its location in in the center of Pacific tuna fisheries. The Pacific Ocean accounts for around 70% of the world tuna harvest, but the major tuna fisheries that exist to the west of Hawaii are oriented towards markets and cannery locations in Asia, and tuna fisheries to the east of Hawaii are oriented toward markets and canneries further to the east. This means that Hawaii is actually at the back door of the two major fisheries for Pacific tuna which have commercial contacts and trade networks that lean away from Hawaii. Exhibit 3 illustrates the case that while Hawaii is located centrally geographically, it seems to be at the extreme edge of both major tuna fisheries and is quite distant from major tuna processors and markets. It is difficult to

conceive of shoreside investments that could be made in Hawaii that could overcome this geographic disadvantage.

GLOBAL TUNA MARKETS

World consumption of all tuna is approximately 1.8 million metric tonnes per year and the U.S. accounts for 37% of it (see Exhibit 4). It is important to note, however, that the U.S. consumes over 60% of the canned tuna produced worldwide and when adjustments are made to account for tuna production/consumption associated with subsistance fisheries and small local markets, the U.S. probably accounts for over 70% of the international market for skipjack tuna. Going one step further and making adjustments to account for nations that are net exporters of skipjack or do not accept skipjack or are heavily protected through tariffs and other trade barriers such as the EEC countries, the U.S. and foreign producers who supply the U.S. probably account for over 80% of the available skipjack market.

As you can see in Exhibit 4, about 80% of the world tuna market involves canned products and although the consumption of other tuna products is increasing worldwide, Japan still dominates the world market for fresh, smoked, dried, pickled, marinated and fermented tuna. We can summarize the three major market areas, U.S., Japan and Europe, individually.

The U.S. Tuna Market

Note in Exhibit 5A that U.S. per capita consumption of tuna fluctuates around the three pound level and appears to have been relatively constant since the mid-1970's. Consider, however, that a mere 1/10 pound decline in U.S. per capita consumption corresponds with a reduction in wholesale and retail canned tuna sales of about 1 million standard cases ($30-$40 million) which in turn means about 20,000 short tons of raw/frozen tuna is released onto the world market. So even this small decline in the U.S. market can put enormous downward pressure on world tuna prices. Consider also that annual U.S. per capita consumption declined by 1/2 pound during 1980-1984 releasing 100,000 short tons of tuna per year on the world market.

Recent declines in U.S. per capita consumption (1980-1984), coupled with increased raw/frozen supplies from developing purse-seine fisheries, forced raw/frozen and canned tuna prices to plummet and precipitated a major structural change in the global tuna industry. At present only one tuna cannery is operating in the U.S.; all the others have moved their canning operations to American Samoa and Puerto Rico or have begun to rely on Asian producers. Exhibit 5B shows that by 1985, the U.S. was importing 70% of its tuna supply (raw/frozen and canned), primarily from Asia, and this trend toward reliance on foreign tuna is expected to continue.

In earlier years, U.S. canners had long-term supply contracts and other special arrangements with U.S. tuna fishermen. This was true in Hawaii as well as on the mainland. Now domestic tuna competes with other tuna on the world market and price is the name of the game. Skipjack is available in large volumes from developing purse-seine fisheries around the world and it does not appear that Hawaii aku fishermen have a cost structure that will allow them to compete in the U.S. cannery market on the basis of price.

The Japanese Market

The Japanese tuna market is intricate and mystifying, but the basic facts suggest that the Japanese market holds very little potential for Hawaii aku. As seen in Exhibit 6, about 50% of Japan's 1985 tuna catch of approximately 500,000 metric tonnes consisted of skipjack and skipjack accounts for 69% of Japanese tuna exports. Japan does import a small amount of skipjack (only 4% of overall tuna imports), but this is primarily katsubushi or aribushi produced outside Japan under joint venture agreements between Japanese companies and others. Only 10% of Japanese skipjack supplies go to the lucrative sashimi market; the rest is smoked, dried, canned or used in specialty products and the excess of Japanese skipjack landings is exported. Even if the Japanese tuna market were to open up to foreign suppliers, exports of tuna to Japan will most certainly be sashimi quality yellowfin, bigeye and bluefin. The prospects for selling a significant amount of Hawaiian aku in frozen or processed form to Japan are not good.

The European Market

The European market for tuna is substantial and does rely on imports of raw/frozen and canned tuna (see Exhibit 7). Nonetheless, prospects for exporting Hawaii aku to this major market are also poor. Europeans have a strong preference for canned yellowfin, not skipjack, and although canned skipjack is gaining acceptance, the major European fishing nations, France and Spain, are still net exporters of skipjack. The growing market for canned skipjack that does exist in Europe is supplied primarily by former European colonies around the world, most notably Senegal and the Ivory Coast, which receive preferential trade treatment in the European market. Nations outside the European Economic Community (EEC) face significant tariffs and other trade barriers which inhibit export of raw/frozen or canned tuna products to EEC countries. If the European market for skipjack continues to grow, there will be ample supplies from European producers and favored "Lome convention" nations for some time to come.

CONCLUSIONS

In general, the traditional world markets for tuna hold very little promise for the Hawaii aku fleet. The market for tuna in general and for skipjack in particular, is depressed and there has been a geographic restructuring of global tuna harvesting and processing industries which does not benefit Hawaii. More changes will take place in the coming years, but it is unlikely

that tuna processing activity will return to the U.S. mainland or that skipjack prices will achieve a level that will allow Hawaii aku to be exported profitably to the traditional cannery market. The fresh skipjack market outside Hawaii, although growing, is still limited and, in most cases, can be supplied by local producers.

Given the financial status of the aku fleet, waiting for an upturn in the tuna market cycle and better world tuna prices will be financially disastrous. Unless the fresh aku market in Hawaii can be expanded dramatically, Hawaii aku fishermen need a new market for excess skipjack catches. If the situation can be overcome at all, it will call for bold action requiring cooperation among Hawaii aku fishermen, local businessmen and government leaders. There are three options worth considering, but only one seems to hold significant promise:

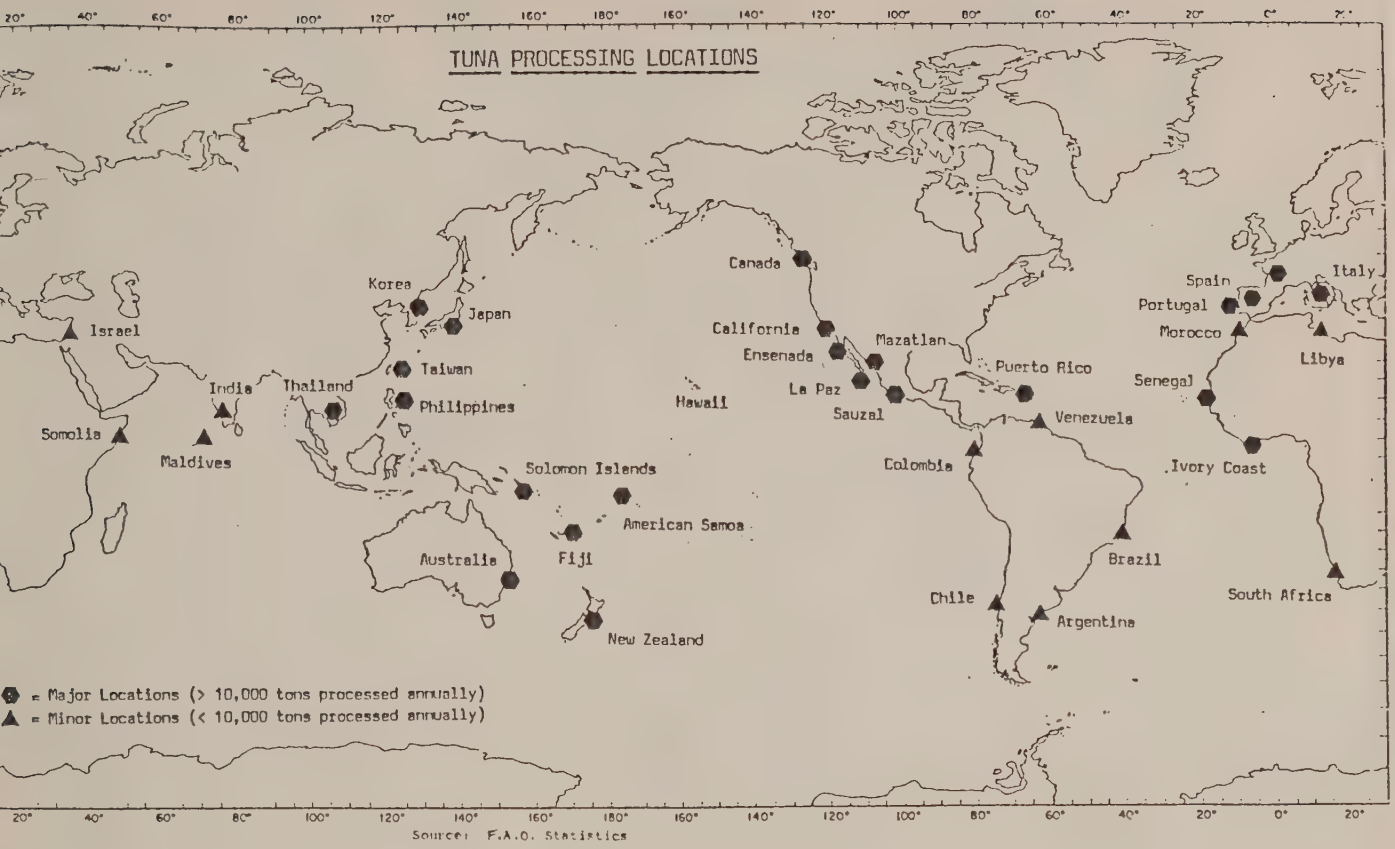
1) Develop a market within Hawaii for frozen sashimi-quality aku. Although this may be possible, any success at market development will draw competition from low-cost foreign producers. Unless local aku boats have an honest cost advantage, which they probably do not, they will lose a competitive battle and the development of this market would merely generate benefits for foreign suppliers, perhaps at the expense of fresh aku sales.

2) Develop the Hawaiian market for fresh, dried and smoked aku. This kind of market development could be successful, but would have to be dramatic to absorb enough aku to support the

fleet. The taste for specialty seafood products and the market for them do not develop quickly so this holds promise only as a long-term possibility.

3) Develop a specialty "Hawaii Canned Aku" pack using excess landings of Hawaii aku and perhaps even imported skipjack. This seems to be the only decent option. Marketing could capitalize on the Hawaiian mystique in the same way macadamia nuts and Hawaiian style potato chips are merchandised and could be successful if the Hawaii product was clearly differentiated from the standard 6-1/2 ounce can and promoted properly in Hawaii and elsewhere. Consider that if a "6 pack" take-home tourist souvenir pack sold for $10, it would yield a retail price of $1.67 per can. If this kind of price is possible and the market is big enough this option could work; there must be someone able pack fish in Hawaii at a profit at this price. This option is worth some investigation. 5000 tons per year translates to annual sales of around 250,000 cases or 22000 cases per month sales. Between tourists, local consumption and specialty exports, is this possible? Try to get a local or mainland entrepreneur to find out.

EXHIBIT 1



CANNED TUNA PRODUCERS
(Raw Weight;thousand metric tonnes)

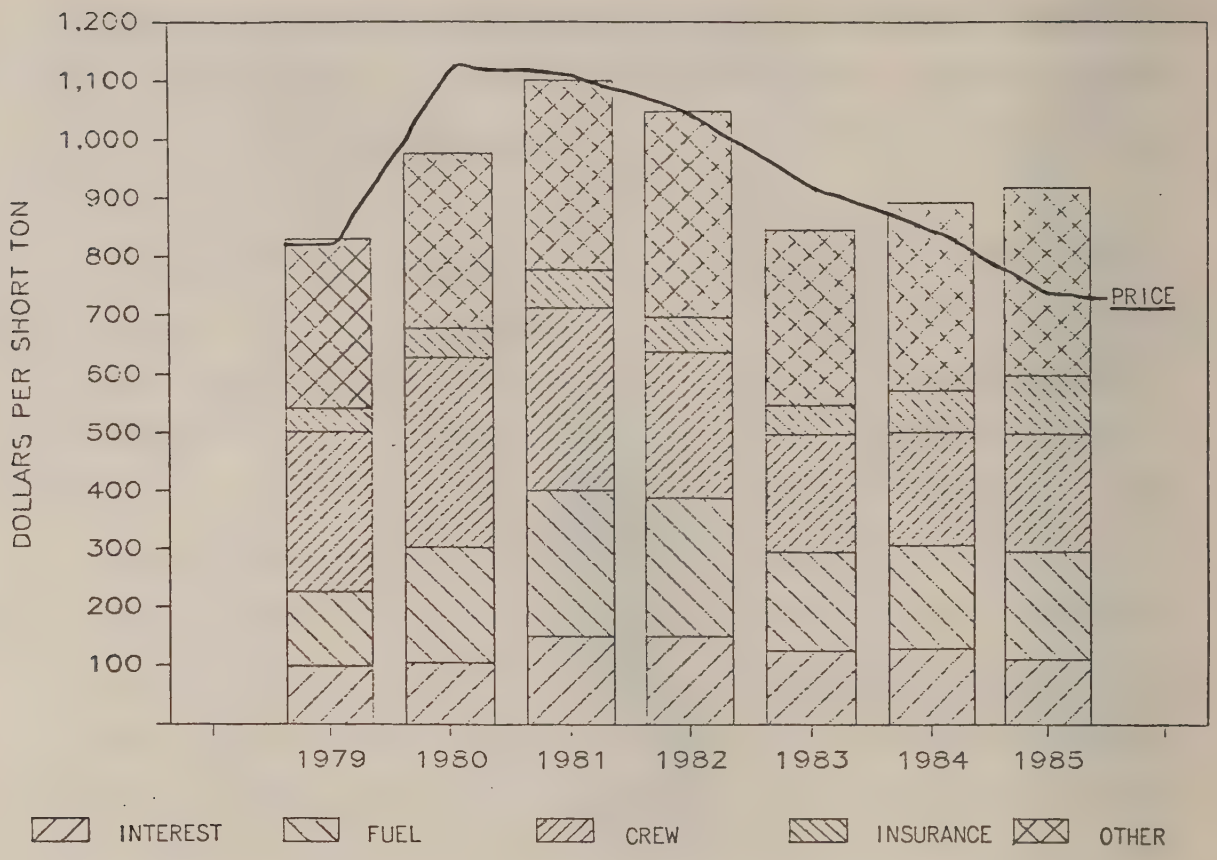
NATION	1980	1981	1982	1983	1984	1984 SHARE
United States	550	574	492	536	550	35.4%
Japan	190	222	226	234	248	16.0%
Italy	96	98	96	104	118	7.6%
Thailand	*	16	30	56	118	7.6%
France	50	46	60	70	76	4.9%
Spain	86	80	74	64	60	3.9%
Ivory Coast	36	52	58	52	46	3.0%
Philippines	22	36	38	48	46	3.0%
Mexico	30	40	26	22	44	2.8%
Taiwan	*	28	22	30	26	1.7%
Ecuador	10	24	22	14	24	1.5%
Others	106	140	130	148	198	12.7%
TOTAL	1116	1356	1274	1380	1554	100.0%

* Less than 500 tonnes.

SOURCE: FAO FISHDAB

EXHIBIT 2

SUMMARY OF RECENT EVENTS
U.S. TUNA PURSE-SEINER PRICE/COST PER S. TON



CHANGE IN BASIC FISHING COST INDICES
(1975 = 100)

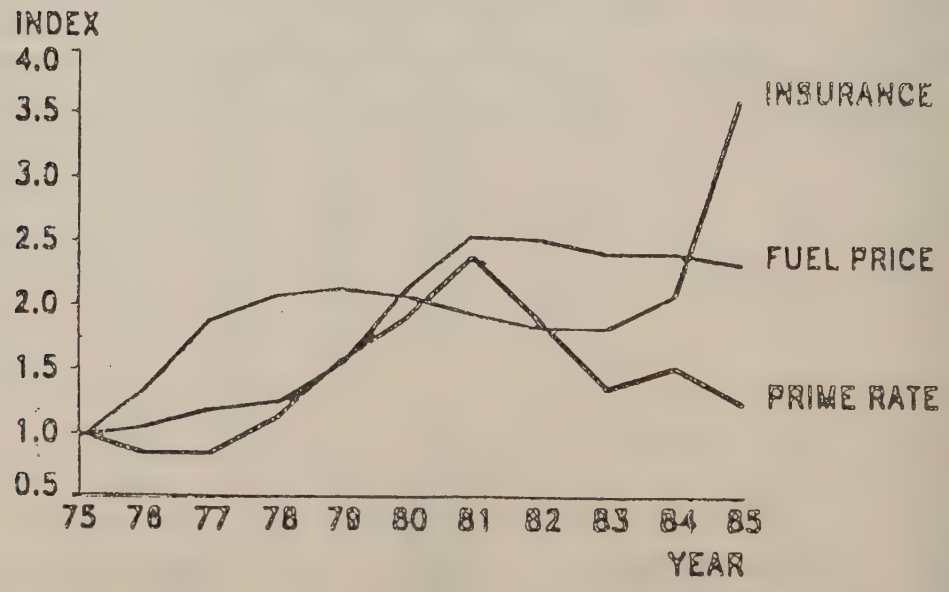
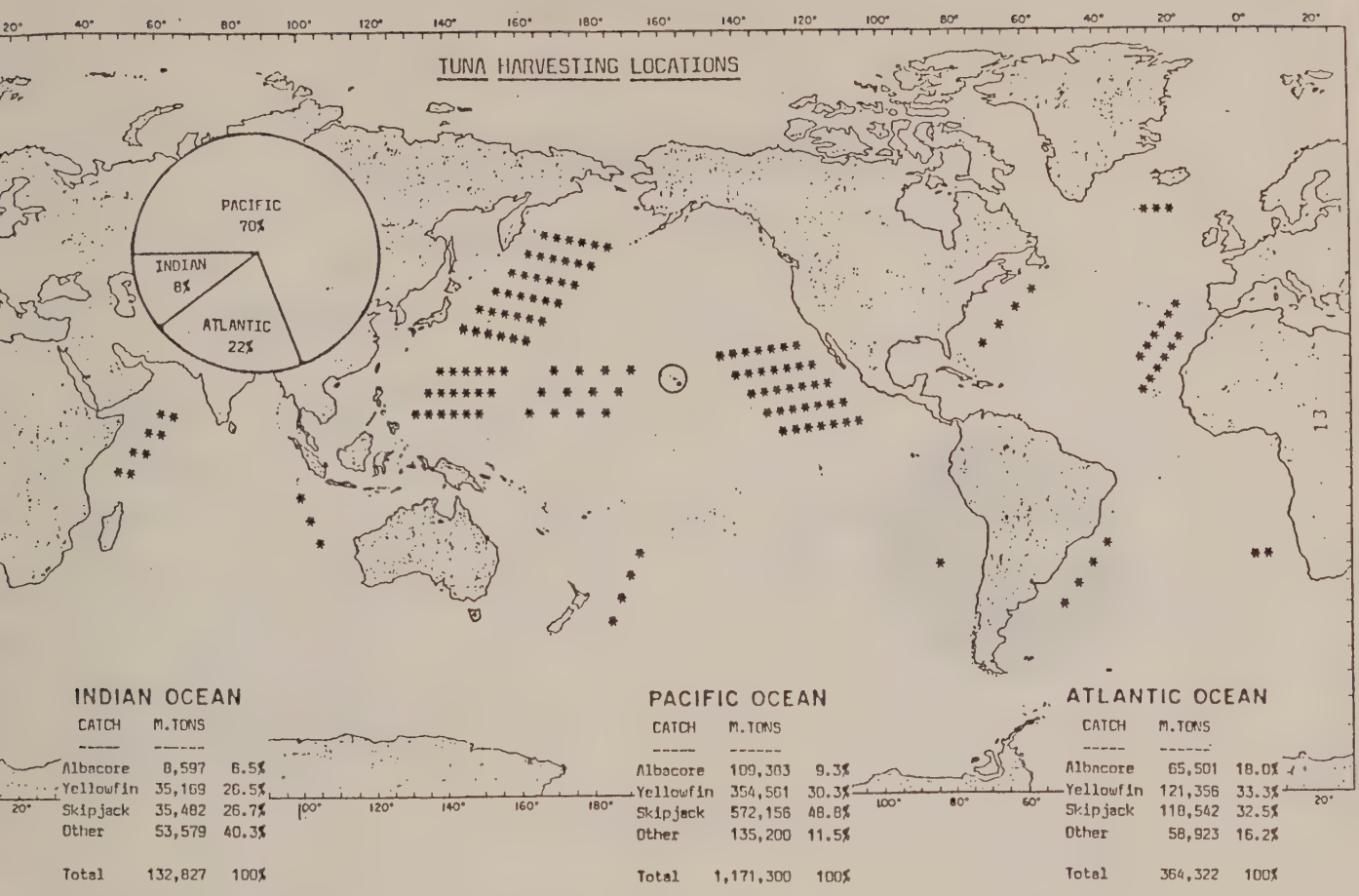


EXHIBIT 3



INDIAN OCEAN

CATCH	M.TONS	
Albacore	8,597	6.5%
Yellowfin	35,169	26.5%
Skipjack	35,482	26.7%
Other	53,579	40.3%
Total	132,827	100%

PACIFIC OCEAN

CATCH	M.TONS	
Albacore	109,383	9.3%
Yellowfin	354,561	30.3%
Skipjack	572,156	48.8%
Other	135,200	11.5%
Total	1,171,300	100%

ATLANTIC OCEAN

CATCH	M.TONS	
Albacore	65,501	18.0%
Yellowfin	121,356	33.3%
Skipjack	118,542	32.5%
Other	58,923	16.2%
Total	364,322	100%

Source: FAO Yearbook of Fishery Statistics

* = 10,000 m. tons of tuna

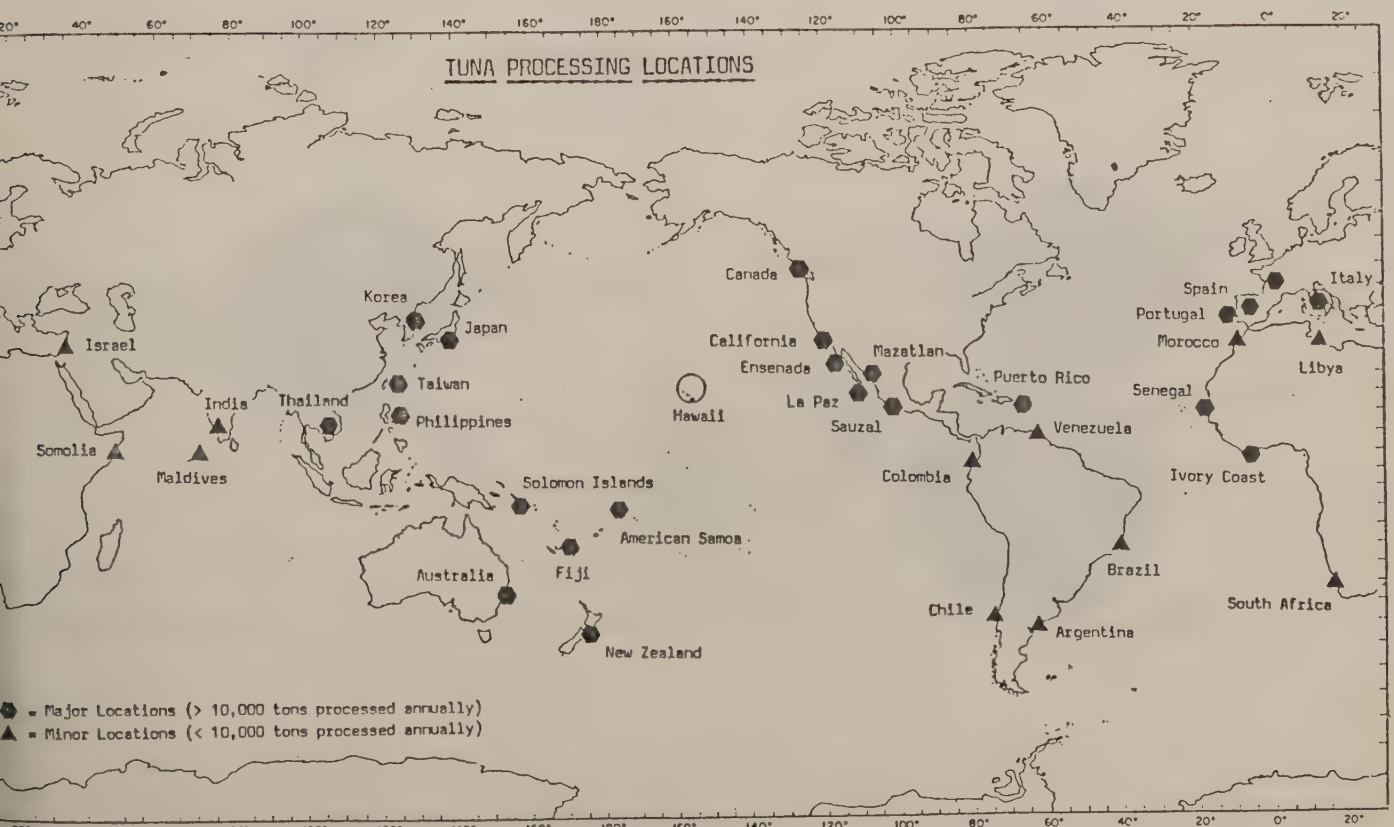
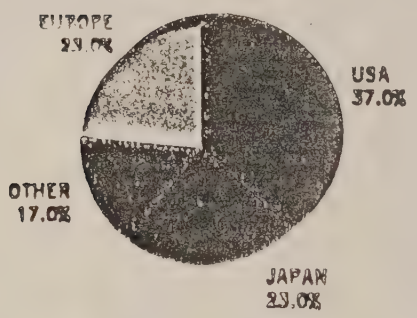


EXHIBIT 4

GLOBAL TUNA MARKET

INTERNATIONAL MARKET SHARE
ALL TUNA



1984 CONSUMPTION
(RAW WEIGHT EQUIVALENT)

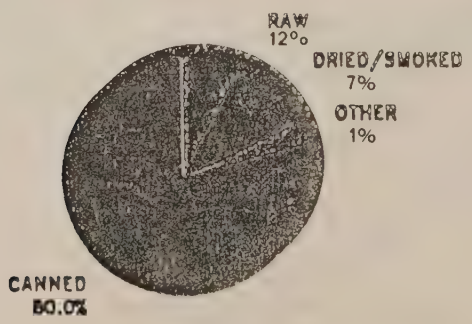
market	all Tunas Volume m. tons	%	Skipjack Volume m. tons	%
USA	650,000	37%	400,000	52%
JAPAN	410,000	23%	143,000	18%
EUROPE	400,000	23%	70,000	9%
OTHER	330,000	17%	165,000	21%
TOTAL	1,790,000	100%	778,000	100%

TUNA PRODUCT FORMS

BY MARKET AREA

PRODUCT FORMS

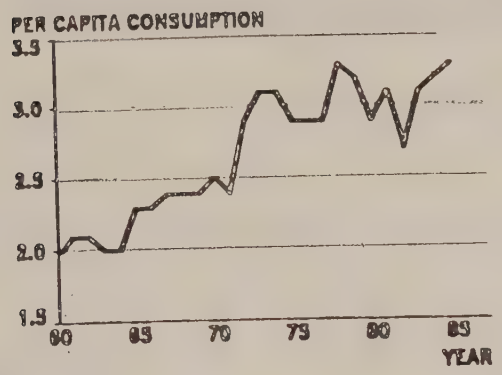
GLOBAL MARKET SHARE
ALL TUNAS



PRODUCT - TYPE

market area	canned %	dried smoked %	fresh raw %	other %	total
USA	95	1	3	1	100%
JAPAN	8	18	68	6	100%
EUROPE	94	1	4	1	100%
OTHER	30%	5%	40%	20%	100%

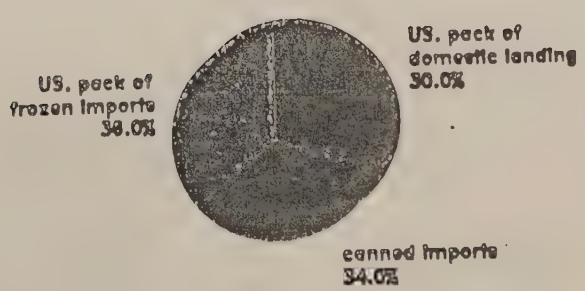
U.S. TUNA MARKET



U.S. TUNA SUPPLY

1975

1985



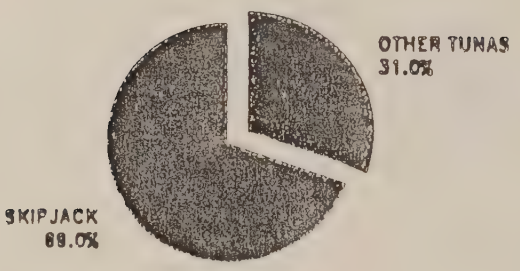
11 4

JAPANESE TUNA MARKET

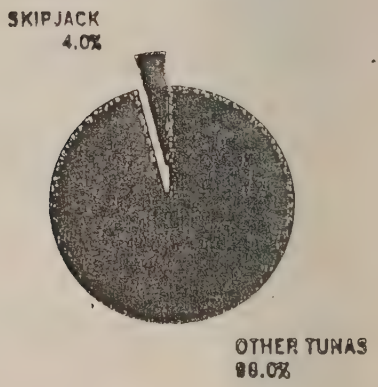
1983 Domestic Landings Skipjack 230000 m. tons 50%

Other Tunas 231400 m. tons 50%

1985 EXPORTS



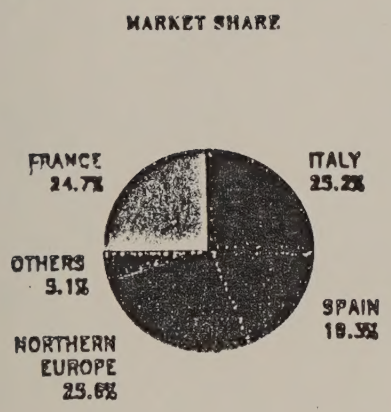
1985 IMPORTS

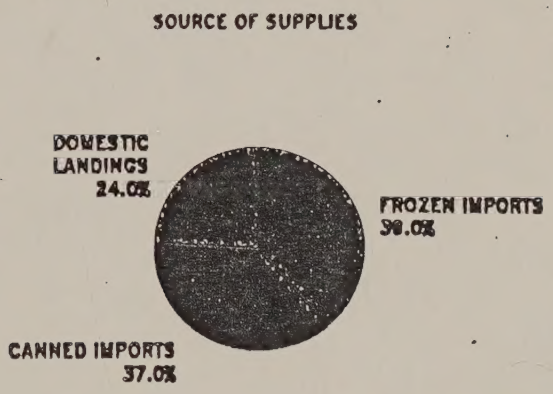


FINAL PRODUCT FORM

SPECIES	CONSUMPTION m. ton raw wt. equivalent	Rest. sashimi	household Sashimi	can prod.	dried smoked	other	total
N. Bluefin	N. Bluefin 14,300	95%	5%	–	–	–	100%
S. Bluefin	S. Bluefin 7,100	95%	5%	–	–	–	100%
Bigeye	Bigeye 112,500	50%	50%	–	–	–	100%
Yellowfin	Yellowfin 78,200	30%	70%	–	–	–	100%
Skipjack	Skipjack 115,000	–	50%	20%	50%	20%	100%

EUROPEAN TUNA MARKET





SUMMARY OF EUROPEAN TUNA MARKET

NATION	1985 CONSUMPTION (M.TON;EDIBLE WT.)	% OF ALL EUROPE	SOURCE OF SUPPLY			
			DOMESTIC LANDINGS	FROZEN IMPORTS	CANNED IMPORTS	TOTAL
RANCE	71,000	31.8%	40%	15%	45%	100%
TALY	64,000	28.6%	0%	98%	2%	100%
PAIN	24,000	10.7%	67%	32%	1%	100%
NGLAND	23,000	10.3%	0%	0%	100%	100%
ERMANY	20,000	9.0%	0%	0%	100%	100%
ORTUGAL	7,650	3.4%	47%	48%	5%	100%
ELGIUM	3,670	1.6%	0%	0%	100%	100%
ETHERLANDS	1,286	0.6%	0%	0%	100%	100%
WITZERLAND	4,422	2.0%	0%	0%	100%	100%
ENMARK	2,098	0.9%	0%	0%	100%	100%
LL OTHER NATIONS	2,300	1.0%	0%	0%	100%	100%
ALL EUROPE	223,426	100.0%	12%	21%	23%	56%